

10004
ALUMINA CHARACTERIZATION

PROJECT OBJECTIVE:

DEVELOP AN INFORMATION BASE FOR THE RELATIONSHIP BETWEEN THE PHYSICAL AND CHEMICAL PROPERTIES OF METAL GRADE ALUMINA AND THE TECHNO-ECONOMIC ASPECTS OF SMELTER OPERATION.

KEY ISSUES:

- o **IS THE REQUIRED INFORMATION RELATING ALUMINA CHARACTERISTICS TO SMELTER OPERATIONS AVAILABLE IN THE LITERATURE?**
- o **HOW DOES THE -20 MICRON ALUMINA FRACTION IMPACT SMELTER OPERATIONS?**
- o **HOW DO CHANGES IN ALUMINA PROPERTIES AFFECT OPERATIONS IN THE SEBREE AND THE COLUMBIA FALLS SMELTERS?**
- o **CAN AN ECONOMIC PENALTY/PREMIUM BE ASSIGNED TO INCREMENTAL CHANGES IN % Fe_2O_3 , % V_2O_5 , % Na_2O , % FREE H_2O IN METAL GRADE ALUMINA?**
- o **ARE THE ANALYTICAL METHODS AT TRL, CF, AND SEBREE SUFFICIENT AND RELIABLE?**